

August 29, 2019
Ms. Elizabeth Williams
Comment Responses for SAC 2015-0807
Berlin Myers Parkway – Phase 3 SCDOT PIN: 23349

Per 40 CFR 230.10, also known as the 404(b)(1) guidelines, no discharge of dredged or fill material shall be permitted if there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have other significant adverse environmental consequences. To this end, additional information is needed to demonstrate that there are no “practicable alternatives” which would fulfill the “overall project purpose” of the proposed work. Please provide additional information to clarify the following:

Based on the Applicant’s purpose and need (to provide system linkage, reduce congestion, and improve safety on surrounding roadways including 17A and Bacons Bridge Road) please provide information describing how each alternative was analyzed as far as “system linkage”? Are improvements to Bacons Bridge Road and Dorchester Road together considered improvements that can provide “system linkage”? Please explain. Additionally, can improvements to East Carolina Avenue and 17A provide “system linkage”?

Improving the roadway network connectivity (or system linkage) is only one of the purposes of the proposed project. System linkage refers to the availability of roadway connections and motorized vehicle mobility options that link existing and emerging populations within Dorchester County to transportation thoroughfares such as I-26. One of the screening criteria for system linkage is providing a limited access roadway from the western side of the Town of Summerville to I-26.

Improvements to Bacons Bridge Road and Dorchester Road were considered as Alternative 4 in the 2006 EA. Since this time, these projects have been constructed. Based on current traffic analysis, portions of these roads are expected to have a Level of Service F by 2040 without additional capacity within the roadway network. These routes also do not provide a limited access roadway from the western side of Summerville toward I-26.

SCDOT and the project team have considered improvements to intersections on East Carolina Avenue and US 17A. While these alternatives may improve traffic flow and congestion in their immediate locations, these proposed alternatives would not provide additional roadway capacity or improve roadway network connectivity/system linkage between I-26 and the western side of Summerville. Widening US 17A is considered under Level 1 screening as Alternative 5. Alternative 5 does not meet the established screening criteria of providing a limited access roadway, and would result in greater impacts to residences, businesses, and the Summerville Historic District. Therefore, these alternatives were eliminated from further consideration.

FHWA’s draft re-evaluation states that “Due to length of time that lapsed since the original traffic study, an updated abbreviated analysis of the V/C and LOS of the area roads was performed based on recent traffic data and modeling”. Please clarify what an abbreviated analysis means. Additionally, it is unclear what other road improvement projects (if any) are included in the analysis presented in Table 3 in FHWA’s draft reevaluation found on page 9. FHWA’s EA (page 7) includes a table that provides BCDCB analysis with Dorchester County Sales Tax Projects (US 78, Bacons Bridge Road, and Dorchester Road) without and with BGM, Phase 3, and provides without Dorchester County Sales Tax Projects without and with BGM, Phase 3. However, Table 3 in the draft reevaluation does not include this same analysis. The Corps is aware that several roads, including Alternative 4 in the EA, have actually been constructed. Please provide clarification or a similar analysis with the most current information.

A number of traffic studies were completed as part of the original EA to assess the need and function of the final phase of the Berlin Myers Parkway. Due to the length of time that lapsed since that traffic study, an updated traffic analysis was conducted to consider the following:

- Recently completed nearby widening projects, such as Dorchester Road and Bacons Bridge Road, and interstate projects, such as Sheep Island Parkway interchange
- Updates to the base year and 2040 travel demand model socioeconomic assumptions
- Updates to the Existing Plus Committed (E+C) roadway network

BCDCOG conducted several runs of its regional travel demand model, including a 2030 and a 2040 scenario. The output from those model runs was used to inform the current traffic analysis; the results of which are included in the *2019 Traffic Analysis Technical Memorandum* (attached).

SCDOT is not able to provide a comparable analysis to FHWA's 2006 Environmental Assessment (EA) because, as noted, several Dorchester County Sales Tax projects have been completed as well as SCDOT projects, such as Sheep Island Parkway interchange. The updated traffic analysis also accounts for future projects to 2040 that were not part of the 2006 EA.

The Corps received numerous comments from the public during the public notice comment period regarding the purpose and need of the project as well as other alternatives that may be less environmentally damaging. Please provide additional information relative to the following:

- **Clearly articulate the current problem(s) to be addressed by the proposed Parkway;**

Growth is projected in southwestern Dorchester County to the west of US 17A. Because of this projected growth, there is a need to provide a link from the anticipated growth areas along US 17A to I-26. The CHATS model has identified growing congestion levels on existing roads in the vicinity of the existing Berlin Myers Parkway, and US 17A, Dorchester Road, and Bacons Bridge Road are expected to be Level of Service F by 2040, which is characterized by stop-and-go conditions, delays and increased accident exposure. Average daily traffic (ADT) for the past five years is increasing in the vicinity of the proposed project. The US 17A crash rate has more than doubled since 2004, and now exceeds the statewide average for principal arterial routes. Safety data indicates approximately 83 percent of the inventoried crashes have been the result of rear-end or angle collisions; volume of traffic and traffic congestion are usually contributing factors to these types of crashes. The purpose of the project is to address these needs by improving roadway network connectivity/system linkage, reducing congestion, and improving safety.

- **There have been many changes in the past 10+ years. The project should be reviewed under current conditions, including the widening of 165, Dorchester Road, and the new Exit 197;**

A traffic study accounts for recently completed projects, such as Dorchester Road widening, Bacons Bridge Road widening, and Sheep Island Parkway interchange on I-26 (Exit 197). Despite these improvements, updated traffic and collision data shows the project is still needed to improve roadway network connectivity/system linkage, reduce congestion, and improve safety. The traffic study also includes projects that are included in the BCDCOG Transportation Improvement Program and are committed to occur prior to 2040. Additional information can be found in the *2019 Traffic Analysis Technical Memorandum*, which is included as an attachment.

- **Potential alternatives the public identified to improve traffic include (1) a roundabout at the intersection of South Main Street and Luden Drive and (2) connecting BGM to Trolley with an overpass at East Carolina connecting to Trolley and (3) improvements to East Carolina and Hwy 17A;**

SCDOT and the project team considered the various alternatives identified by the public and listed above. While these alternatives may improve traffic flow and congestion in their immediate locations, these suggested alternatives would not provide additional roadway capacity or improve roadway network connectivity/system linkage between I-26 and the western side of Summerville. While these specific alternatives were not carried forward for analysis, it should be noted that as part of the proposed project, improvements will be implemented to improve traffic flows at the existing Berlin Myers Parkway, Trolley Road and East Carolina intersection.

- **Please clarify whether the proposed alternative will satisfy the intended need of the project or if it is dependent on other projects collectively to fulfill the purpose of the project.**

The proposed alternative would satisfy the purpose and need of the project and is not dependent on other projects.

In response to the Public Notice, several resource agencies and members of the general public provided comments pertaining to the proposed impacts to wetlands, floodplains, and aquatic wildlife habitat. Please review the proposal and provide additional information on the practicability of additional avoidance and minimization measures specifically to waters of the US, including wetlands.

Since the public notice, SCDOT has revised a portion of the floodplain bench along the Sawmill Branch Walk/Bike Trail in order to maintain the existing forested wetland. These design revisions have resulted in a reduction in approximately 3 acres of forested wetland impacts. Additional design alterations to avoid the floodplains or wetlands are impracticable due to design constraints necessary to maintain conveyance of the floodway.

A DA permit will not be granted if the District Engineer determines that it would be contrary to the public interest based on an evaluation of the probable impacts, including cumulative impacts, of the proposed activity and its intended use on the public interest (33 CFR 320.4(a)(1)). Therefore, the following general criteria will be considered in the evaluation of the proposed project:

- a) The relative extent of the public and private need of the proposed structure or work;**
- b) Where there are unresolved conflicts as to resource use, the practicability of using reasonable alternative locations and methods to accomplish the objective structure or work;**
- c) The extent and permanence of the beneficial and/or detrimental effects which the proposed structure or work is likely to have on the public and private uses to which the area is suited. Therefore, please review all the comment letters attached and provide responses to the questions and concerns. There has been a great deal of concern surrounding the proposed project from residents in the Summerville area. In particular, the potential for an increased risk of flooding due to the proposed project was a major concern, which the Corps is currently reviewing information**

provided by SCDOT. Other areas of concern that the Corps requests that you address include the following:

A hydraulic analysis associated with the Section 408 review was conducted to demonstrate that the proposed project would not be injurious to the public interest and would not adversely affect the ability of Sawmill Branch to provide flood control. Floodplain mitigation measures were incorporated into the project to offset any adverse effects of the proposed roadway. The complete hydraulic analysis can be found in the Section 408 package.

- **noise of the proposed parkway relative to the surrounding residence;**

A noise impact analysis concluded that a total of 36 receivers would be impacted by the project, based on the current SCDOT Traffic Noise Abatement Policy. SCDOT studied the reasonableness and feasibility of noise barriers at three locations; however, none of the noise abatement measures were considered to be feasible and/or cost effective, and no noise abatement measures are recommended. Additional information can be found in the *Noise Impact Technical Report – Proposed Berlin Myers Parkway – Phase 3*, which is included as an attachment. Page 4 of 19 lists the location of noise readings and Appendix 2 provides aerial mapping of those locations. Pages 9-6 of 19 summarize and describe the findings of the noise analysis.

- **the noise of the proposed parkway on the public use of the bike/walk trail that will be relocated as part of the proposal;**

A noise impact analysis report includes an analysis of the potential noise impacts to the Sawmill Branch Walk/Bike Trail. Additional information can be found in the *Noise Impact Technical Report – Proposed Berlin Myers Parkway – Phase 3*, which is included as an attachment. Noise abatement measures were not considered to be feasible and/or cost effective, and no noise abatement measures are recommended.

- **the negative aesthetics that will occur as a result of the proposed parkway for both residents and the general public utilizing the public bike/walk trail;**

Concerns about aesthetics and buffers between the trail and the roadway are understood to be important by the public. Since the public notice, revisions were made to a portion of the floodplain bench along the Sawmill Branch Walk/Bike Trail in order to maintain the existing forested wetland. These trees will serve as a buffer between the roadway and the trail. On other portions of the project, vegetation would be cleared to construct the proposed roadway and floodplain bench along Sawmill Branch. After construction, the area between the parkway and trail would be allowed to naturally re-vegetate and would serve as a buffer between the roadway and the trail. These measures should reduce the potential impact on aesthetics in the area.

- **the lack of buffer (vegetative or otherwise) between the proposed parkway and the public bike/walk trail;**

Since the public notice, revisions were made to a portion of the floodplain bench along the Sawmill Branch Walk/Bike Trail in order to maintain the existing forested wetland. These trees will serve as a buffer between the roadway and the trail. On other portions of the project, vegetation would be cleared to construct the proposed roadway and floodplain bench along Sawmill Branch. After construction, the area between the parkway and trail would be allowed to naturally re-vegetate and would serve as a buffer between the roadway and the trail.

- **the removal of public parking at Luden Street that is currently available for public use to access the bike/walk trail;**

FHWA, SCDOT, and the Town of Summerville have signed a Memorandum of Agreement (MOA) to mitigate for temporary and permanent impacts on the Sawmill Branch Walk/Bike Trail and Luden Drive parking area. Per the MOA, the Town of Summerville will ensure that permanent parking is provided in close proximity to the trail and within ½ mile radius of the existing Luden Drive parking area upon completion of the project.

- **the change in land use from public recreational land to a roadway facility;**

While the proposed project would affect the Sawmill Branch Walk/Bike Trail, the remainder of the roadway would not affect public recreational land. The trail would be reconstructed in essentially the same location, although at a lower elevation, to accommodate the flood mitigation efforts. A new segment of trail would be created on the floodplain bench between Greenwave Boulevard and Luden Drive that connects to a sidewalk adjacent to the proposed roadway. FHWA, SCDOT, and the Town of Summerville have signed a Memorandum of Agreement (MOA) to mitigate for temporary and permanent impacts on the Sawmill Branch Walk/Bike Trail.

- **the destruction of wildlife habitat;**

Wildlife may be displaced from the project area to similar habitats nearby along Sawmill Branch and the Ashley River. The proposed project would not result in adverse effects to federally threatened or endangered species.

- **the destruction of a natural water quality filter (wetlands) and the resulting water pollution;**

A stormwater management program would be instituted in accordance with SCDOT's Storm Water Quality Manual, SC State Stormwater Regulations [R. 72-400], and the Clean Water Act Section 409 (National Pollution Discharge Elimination System (NPDES)) as regulated by the SC Department of Health and Environmental Control's (DHEC) Bureau of Water to address the potential for additional water quality impairments along Sawmill Branch. The stormwater management plan is intended to remove pollutants causing water quality impairments from stormwater runoff associated with the proposed project. The plan includes the use of one wet detention basin and the area included in the floodplain bench to provide vegetative filtration of stormwater runoff prior to direct discharge into Sawmill Branch. Vegetative areas within SCDOT right-of-way will also provide filtering for project runoff. Throughout the project, water quality treatment would be provided by vegetative swales (typical roadway ditches and conveyance systems), enhanced vegetative swales (earthen flow control structures), floodplain benches, and outfall BMPs, including use of water quality basins and vegetative swales. The contractor and SCDOT would be responsible for maintenance of erosion and sediment control best management practices during construction to ensure the 80 percent trapping efficiencies are maintained during construction.

- **temporary alternative routes for the bike/walk trail during the construction of the parkway;**

FHWA, SCDOT, and the Town of Summerville have signed a Memorandum of Agreement (MOA) to mitigate for temporary and permanent impacts on the Sawmill Branch Walk/Bike Trail. Per the MOA, SCDOT and the Town of Summerville will provide a temporary detour for the segment of trail between East Carolina Avenue and Luden Drive during construction of the project. The Town will provide temporary signage to direct trail users to the temporary trail detour.

- **the unfair trade of purchasing wetlands credits versus providing mitigation for wetland and wildlife habitat loss within the same area, i.e. Town of Summerville;**

On April 10, 2008, the USACE and the Environmental Protection Agency published regulations (33 CFR Parts 325 and 332) entitled, “Compensatory Mitigation for Losses of Aquatic Resources,” that established a hierarchy that is based upon the likelihood of a mitigation plan being both successful and sustainable. Compensatory mitigation provided by an approved mitigation bank is presumed to be environmentally preferable to permittee-responsible mitigation (PRM) because it involves larger, more ecologically valuable aquatic resources and more rigorous scientific and technical analysis. In addition, mitigation banks are approved and implemented prior to the adverse impacts to aquatic resources associated with individual projects, so there is less potential for temporal losses and less uncertainty regarding the success of mitigation activities.

SCDOT’s mitigation plan for the proposed project aligns with USACE mitigation regulations and USACE, Charleston District mitigation guidelines. Wetland restoration and stream restoration credits will be obtained from Pigeon Pond Mitigation Bank and Caton Creek Mitigation Bank, which are approved mitigation banks that serve the project area. These banks are located in the headwaters of the Ashley/Cooper River watershed, in which the project is located. In addition, SCDOT is proposing to preserve approximately 368 acres of wetland, 23,216 feet of intermittent and perennial streams, and 232 acres of upland on the Lewisfield Plantation PRM site, located along the Cooper River and within the same Ashley/Cooper River watershed as the proposed project.

- **the proposed lower elevation of the bike/walk trail and resulting inaccessibility of the trail immediately after rainfall events;**

SCDOT has evaluated potential impacts of the project on the Sawmill Branch Walk/Bike Trail, including the potential for increased flooding following rainfall events. A portion of the trail that crosses under the Luden Drive bridge may flood following certain storm events. However, the trail design includes a spur up to Luden Drive that can be used to navigate around this area.

- **safety concerns of having a roadway immediately beside a bike/walk trail heavily utilized by residents;**

The roadway and Sawmill Branch Walk/Bike Trail have been designed in accordance with FHWA and SCDOT design manuals and safety specifications. The proposed project would be a limited access or controlled access roadway, which will be fenced at the SCDOT right-of-way. Most of the trail would remain approximately in its current location, separate from the proposed

roadway. As noted previously, since the public notice, revisions were made to a portion of the floodplain bench along the Sawmill Branch Walk/Bike Trail in order to maintain the existing forested wetland between the roadway and the trail. On other portions of the project, the area between the parkway and trail would be allowed to naturally re-vegetate and would serve as a buffer between the roadway and the trail.

- **use of large amount of public dollars for a short new location roadway;**

The proposed project is intended to address current problems in the Town of Summerville and Dorchester County area related to roadway network connectivity, congestion, and safety.

- **questions on the need for the proposed parkway when there have been several improvement projects implemented after the initial BGM proposal;**

As noted above, the traffic study accounts for recently completed projects, such as Dorchester Road widening, Bacons Bridge Road widening, and Sheep Island Parkway interchange on I-26 (Exit 197). Despite these improvements, updated traffic and collision data shows the project is still needed to improve roadway network connectivity/system linkage, reduce congestion, and improve safety. Additional information can be found in the *2019 Traffic Analysis Technical Memorandum* in the attachments.

Finally, a couple of additional items are necessary. Please provide an update of coordination that has occurred with FEMA as it pertains to the proposed impacts in the floodplain and NFIP compliance.

A Conditional Letter of Map Revision (CLOMR) application was originally submitted to FEMA on May 11, 2018. The CLOMR submittal included hydraulic modeling utilizing the effective one-dimensional hydraulic model updated to reflect the proposed design of the Berlin Myers Parkway Phase 3 Project. In August 2018, a 316 AD letter was received from FEMA with comments regarding the submittal. The comments requested verification of existing structures and confirmation of modeling assumptions. The FEMA comments did not result in design changes to the project. SCDOT and the project team coordinated with the CLOMR reviewer regarding the FEMA comments as well as the hydraulic and hydrologic comments from the USACE review of the Section 408 submittal. The CLOMR application is in process of being updated to reflect the revised modeling assumptions as the result of the USACE Section 408 comments, terrain updates to reflect the grading revisions to reduce wetland impacts, and to address the FEMA comments. Revisions to the hydraulic analysis were completed and no significant issues were identified. HDR is in process of completing the revisions to the CLOMR application and anticipates fully responding to the FEMA comments in March 2019.

Also, please provide a complete Compensatory Mitigation Plan to include a detailed Permittee Responsible Mitigation Plan per 33 CFR 332.4(c) for the Lewisfield Plantation site.

A Compensatory Mitigation Plan including a detailed Permittee Responsible Mitigation Plan for the Lewisfield Plantation site is forthcoming.

A revised set of permit drawings are included for your reference. These drawings reflect the minimization of wetland impacts along the floodplain bench as well as minor design adjustments since the public notice.